

SPECIFICATIONS

410E	
Type.....	John Deere 4045T Turbocharged
Rated power @ 2,200 rpm.....	98 SAE gross hp (73 kW) 90 SAE net hp (67 kW)
Cylinders.....	4
Displacement.....	276 cu. in. (4.524 L)
Fuel consumption, typical.....	1.5 to 2.5 gal./hr. (5.7 to 9.5 L/h)
Torque rise.....	34 percent
Maximum net torque.....	287 lb.-ft. (389 Nm)
Lubrication.....	pressure system with full-flow spin-on filter and cooler
Air cleaner.....	dual stage dry type with safety element and precleaner
Electrical system.....	12 volt with 65-amp alternator
Sucker-type cooling fan	
TRANSMISSION	four-speed, helical cut gear, collar shift transmission synchronized in all gears with hydraulic reverser
Torque converter, single stage, dual phase with 2.12:1	
stall ratio.....	11 in. (280 mm)
Travel speeds with 19.5L-24 rear tires	<i>Forward</i>
Gear 1.....	3.6 mph (5.8 km/h)
Gear 2.....	5.9 mph (9.5 km/h)
Gear 3.....	14.4 mph (23.2 km/h)
Gear 4.....	24.4 mph (39.3 km/h)
	<i>Reverse</i>
	4.0 mph (6.4 km/h)
	6.6 mph (10.6 km/h)
	16.1 mph (25.9 km/h)
	27.2 mph (43.8 km/h)
FINAL DRIVES	heavy-duty, inboard planetary final drives evenly distribute shock loads over three gears
BRAKES	hydraulic wet disk, mounted inboard, self adjusting and self equalizing
CAPACITIES	
Fuel tank (with ground level fueling)	36 gal. (136 L)
Engine coolant.....	17 qt. (16 L)
Engine oil including filter	14 qt. (13 L)
Torque converter and transmission	15 qt. (14 L)
Hydraulic system	25 gal. (95 L)
Rear axle	3.5 gal. (13 L)
Mechanical-front-wheel-drive axle	2.3 gal. (8.5 L)
STEERING	hydrostatic power steering conforms to SAE J1151, emergency steering to SAE J53
Non-powered axle	
Curb turning radius with brakes	11 ft. 8 in. (3.56 m)
Without brakes	13 ft. 3 in. (4.04 m)
Bucket clearance circle with brakes	31 ft. 8 in. (9.65 m)
Without brakes	34 ft. 9 in. (10.59 m)
Steering wheel turns, stop to stop	2.3 to 3.0
Mechanical-front-wheel-drive	
Curb turning radius with brakes	11 ft. 5 in. (3.48 m)
Without brakes	13 ft. 6 in. (4.11 m)
Bucket clearance circle with brakes	29 ft. 7 in. (9.02 m)
Without brakes	33 ft. 8 in. (10.26 m)
Steering wheel turns, stop to stop	2.5
Axle oscillation, stop to stop, both axles	22 degrees
Axle ratings (SAE J43)	
Front	22,360 lb. (10 140 kg)
Rear	15,530 lb. (7045 kg)
HYDRAULIC SYSTEM	
System	pressure compensated load sensing (PCLS)
Pressure, main relief	3,625 psi (25 000 kPa)
Pump	axial piston
Flow @ 2,200 rpm	42 gpm (159 L/min.)
Filter, return oil	10-micron, spin-on vertical replaceable element

CYLINDERS**410E**

	<i>Bore</i>	<i>Stroke</i>	<i>Rod</i>
Loader boom (2)	3.15 in. (80 mm)	31.1 in. (790 mm)	1.97 in. (50 mm)
Loader bucket (1)	3.54 in. (90 mm)	29.3 in. (744 mm)	1.97 in. (50 mm)
Backhoe boom (1)	4.92 in. (125 mm)	35.3 in. (897 mm)	2.48 in. (63 mm)
Backhoe crowd (1)	4.53 in. (115 mm)	27.7 in. (703 mm)	2.48 in. (63 mm)
Backhoe bucket (1)	3.94 in. (100 mm)	31.9 in. (810 mm)	2.48 in. (63 mm)
Backhoe swing (2)	3.54 in. (90 mm)	10.9 in. (278 mm)	1.97 in. (50 mm)
Backhoe extendable dipperstick (1)	2.76 in. (70 mm)	47.8 in. (1214 mm)	1.77 in. (45 mm)
Backhoe stabilizer (2)	3.94 in. (100 mm)	19.7 in. (500 mm)	1.97 in. (50 mm)
Steering (1) non-powered axle	2.20 in. (56 mm)	9.49 in. (241 mm)	0.98 in. (25 mm)
Steering (1) MFWD	2.56 in. (65 mm)	8.27 in. (210 mm)	1.42 in. (36 mm)

TIRES*Rear*

With non-powered front axle	19.5L-24, 10 PR R4 21L-24, 10 PR R4	11L-16, 12 PR F3 14.5/75-16.1, 10 PR F3
With mechanical-front-wheel-drive	19.5L-24, 10 PR R4 21L-24, 10 PR R4	12.5/80-18, 10 PR 12.5/80-18, 10 PR

Front

11L-16, 12 PR F3
12.5/80-18, 10 PR

SAE OPERATING WEIGHTS

Standard	15,000 lb. (6804 kg)
Cab adds	580 lb. (263 kg)
Mechanical-front-wheel-drive with tires adds	325 lb. (147 kg)
Extendable dipperstick excluding required counter-weight adds	638 lb. (289 kg)
Optional 400-lb. counterweight adds	400 lb. (181 kg)
Optional 650-lb. counterweight adds	650 lb. (295 kg)
Optional 250-lb. bolt-on counterweight adds	250 lb. (113 kg)
Backhoe bucket coupler adds	130 lb. (59 kg)

See backhoe and loader performance data for bucket weights.

LOADER BUCKETS

	<i>Width</i>	<i>Heaped Capacity</i>	<i>Weight</i>
Heavy-duty long lip	86 in. (2180 mm)	1.25 cu. yd. (0.96 m ³)	875 lb. (397 kg)
	92 in. (2340 mm)	1.30 cu. yd. (1.00 m ³)	1,050 lb. (476 kg)
	92 in. (2340 mm)	1.50 cu. yd. (1.15 m ³)	1,190 lb. (540 kg)
Multipurpose	92 in. (2340 mm)	1.25 cu. yd. (0.96 m ³)	1,550 lb. (703 kg)

Auxiliary cutting edge and skid shoes are standard on all buckets.

BACKHOE PERFORMANCE

	<i>With Standard Backhoe*</i>	<i>With Extendable Dipperstick*</i>	
	<i>Retracted</i>	<i>Extended</i>	
Digging force, bucket cylinder	14,801 lb. (65.8 kN)	15,010 lb. (66.7 kN)	15,010 lb. (66.7 kN)
Digging force, crowd cylinder	8,741 lb. (38.9 kN)	8,446 lb. (37.6 kN)	5,980 lb. (26.6 kN)
Swing arc	180 degrees	180 degrees	180 degrees
Operator control	two levers	right foot treadle	right foot treadle
Bucket rotation	190 degrees	190 degrees	190 degrees
Stabilizer angle rearward	18 degrees	18 degrees	18 degrees
Leveling angle	14 degrees	14 degrees	14 degrees

*Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) bucket.

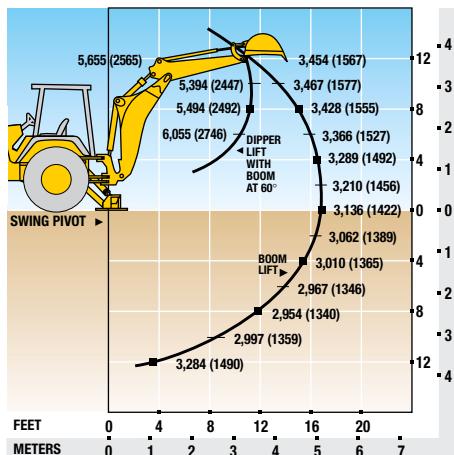
BACKHOE BUCKETS

	<i>Width</i>	<i>Capacity</i>	<i>Weight</i>
Standard duty	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	350 lb. (159 kg)
Heavy duty	12 in. (305 mm)	3.3 cu. ft. (0.09 m ³)	295 lb. (134 kg)
	18 in. (457 mm)	5.1 cu. ft. (0.14 m ³)	335 lb. (152 kg)
	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	400 lb. (181 kg)
	24 in. (610 mm)	8.8 cu. ft. (0.25 m ³)	420 lb. (191 kg)
	30 in. (762 mm)	10.0 cu. ft. (0.28 m ³)	445 lb. (202 kg)
Extra heavy duty	36 in. (914 mm)	12.5 cu. ft. (0.35 m ³)	510 lb. (231 kg)
	18 in. (457 mm)	5.1 cu. ft. (0.14 m ³)	362 lb. (164 kg)
	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	425 lb. (193 kg)
	24 in. (610 mm)	8.8 cu. ft. (0.25 m ³)	455 lb. (206 kg)
	30 in. (762 mm)	10.0 cu. ft. (0.28 m ³)	475 lb. (215 kg)
Ditch cleaning	36 in. (914 mm)	12.5 cu. ft. (0.35 m ³)	510 lb. (231 kg)

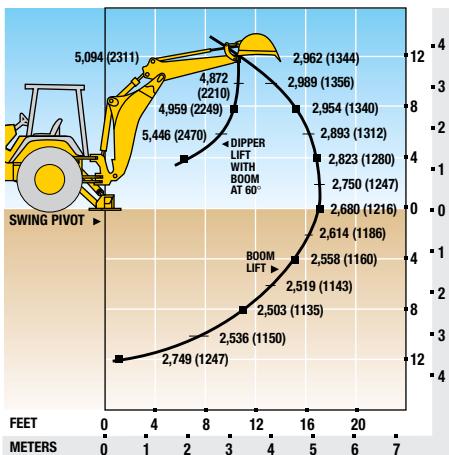
LIFT CAPACITIES* / DIMENSIONS

*Lift capacities are over-end values in lb. (kg) according to SAE J31. Figures listed are 87% of the maximum lift force available. Base vehicle includes counterweight.

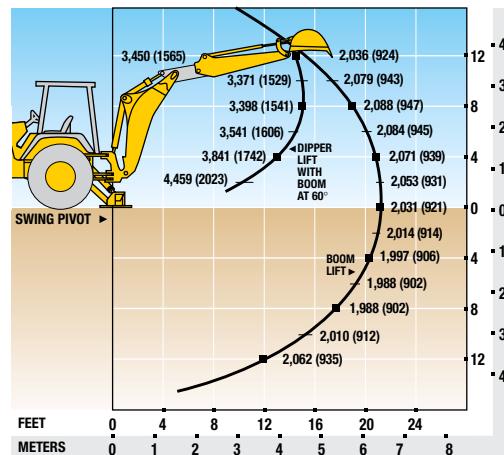
**410E BACKHOE WITH
STANDARD DIPPERSTICK**



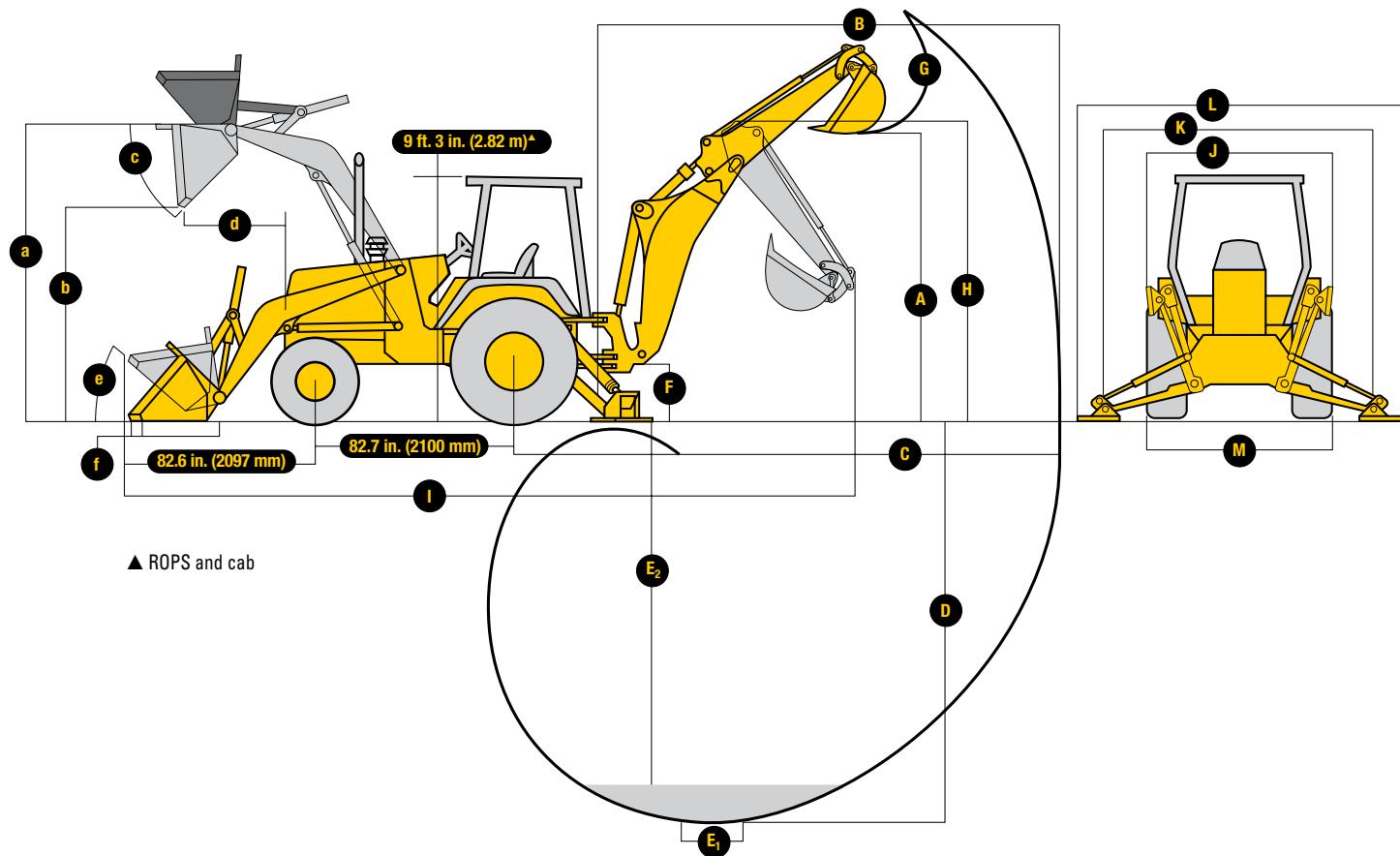
**410E BACKHOE WITH 4 FT. (1.22 M)
EXTENDABLE DIPPERSTICK, RETRACTED**



**410E BACKHOE WITH 4 FT. (1.22 M)
EXTENDABLE DIPPERSTICK, EXTENDED**



DIMENSIONS (SEE PAGE 19.)



BACKHOE

410E

	With Standard Backhoe*	With Extendable Dipperstick* Retracted	Extended
A Loading height, truck loading position.....	12 ft. 6 in. (3.81 m)	12 ft. 8 in. (3.86 m)	15 ft. 6 in. (4.72 m)
B Reach from center of swing mast.....	19 ft. 8 in. (5.99 m)	19 ft. 11 in. (6.07 m)	23 ft. 8 in. (7.21 m)
C Reach from center of rear axle.....	23 ft. 4 in. (7.11 m)	23 ft. 7 in. (7.19 m)	27 ft. 4 in. (8.33 m)
D Maximum digging depth.....	15 ft. 10 in. (4.83 m)	16 ft. 1 in. (4.90 m)	20 ft. (6.10 m)
E Digging depth (SAE):			
(1) 2-ft. (610 mm) flat bottom.....	15 ft. 8 in. (4.78 m)	15 ft. 11 in. (4.85 m)	19 ft. 11 in. (6.07 m)
(2) 8-ft. (2440 mm) flat bottom.....	14 ft. 7 in. (4.45 m)	14 ft. 11 in. (4.55 m)	19 ft. 1 in. (5.82 m)
F Ground clearance, minimum.....	14 in. (356 mm)	14 in. (356 mm)	14 in. (356 mm)
G Bucket rotation.....	190 degrees	190 degrees	190 degrees
H Transport height.....	12 ft. 11 in. (3.94 m)	12 ft. 10 in. (3.91 m)	12 ft. 10 in. (3.91 m)
I Overall length, transport.....	23 ft. 11 in. (7.29 m)	23 ft. 11 in. (7.29 m)	23 ft. 11 in. (7.29 m)
J Stabilizer width – transport with ROPS.....	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)
K Stabilizer spread – operating.....	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)
L Stabilizer overall width – operating.....	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)
M Width over tires.....	86 in. (2.18 m)	86 in. (2.18 m)	86 in. (2.18 m)

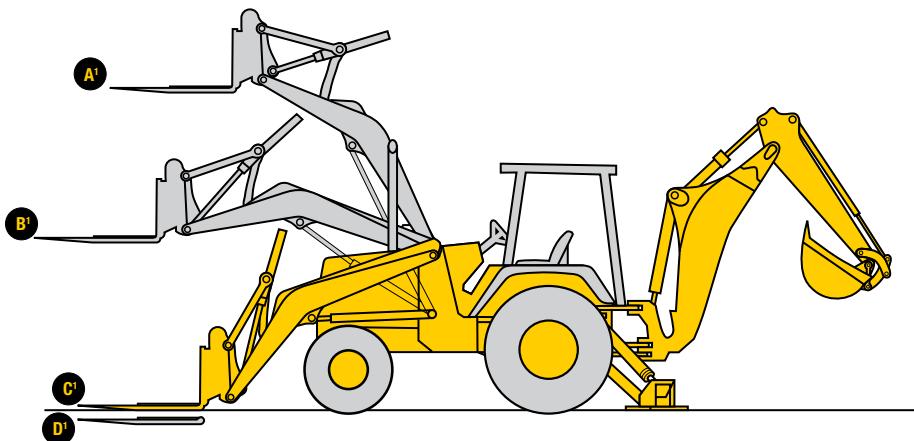
*Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) bucket.

LOADER PERFORMANCE WITH BUCKET OPTIONS

	1.25 cu. yd. (0.96 m ³) Heavy-Duty Long-Lip	1.30 cu. yd. (1.00 m ³) Heavy-Duty Long-Lip	1.50 cu. yd. (1.15 m ³) Heavy-Duty Long-Lip	1.25 cu. yd. (0.96 m ³) Multipurpose
Operator control.....	single lever	single lever	single lever	dual lever
Breakout force.....	10,210 lb. (45.4 kN)	10,300 lb. (45.8 kN)	10,170 lb. (45.2 kN)	9,700 lb. (43.1 kN)
Lifting capacity, full height.....	7,340 lb. (3323 kg)	7,200 lb. (3266 kg)	7,070 lb. (3207 kg)	6,700 lb. (3039 kg)
a Height to bucket hinge pin, maximum.....	11 ft. (3.35 m)	11 ft. (3.35 m)	11 ft. (3.35 m)	11 ft. (3.35 m)
b Dump clearance, bucket at 45 degrees.....	8 ft. 4 in. (2.49 m)	8 ft. 10 in. (2.69 m)	8 ft. 9 in. (2.67 m)	8 ft. 8 in. (2.64 m)
c Bucket dump angle, maximum.....	45 degrees	45 degrees	45 degrees	45 degrees
d Reach at full height, bucket at 45 degrees.....	35.5 in. (902 mm)	30.0 in. (762 mm)	31.0 in. (787 mm)	32.2 in. (818 mm)
e Rollback angle at ground level.....	40 degrees	40 degrees	40 degrees	40 degrees
f Digging depth below ground, bucket level.....	4.2 in. (107 mm)	6.7 in. (170 mm)	6.2 in. (157 mm)	5.9 in. (150 mm)
Raising time to full height.....	4.8 sec.	4.8 sec.	4.8 sec.	4.8 sec.
Bucket dump time.....	1.4 sec.	1.4 sec.	1.4 sec.	1.4 sec.
Bucket lowering time (power down).....	2.3 sec.	2.3 sec.	2.3 sec.	2.3 sec.

LIFT CAPACITY WITH QUICK COUPLER/FORKS

A Maximum height.....	5,038 lb. (2287 kg)
B Maximum reach.....	7,462 lb. (3388 kg)
C At ground line.....	9,853 lb. (4473 kg)
D Below ground line.....	4.4 in. (112.7 mm) to bottom of tine / 2.7 in. (68.3 mm) to top of tine



ADDITIONAL EQUIPMENT

	410E	410E	410E
ENGINE			
John Deere Model 4045T – 4.5 liter, 90 SAE net hp turbocharged, isolation mounted	●		
Vertical spin-on engine oil filter	●		
Spin-on John Deere fuel filter with water separator	●		
Oil-to-water engine oil cooler	●		
Antifreeze, -34°F (-37°C)	●		
Coolant recovery tank	●		
Serpentine belt with automatic belt tensioner	●		
Sucker-type cooling fan	●		
Enclosed safety fan guard	●		
High ambient temperature engine cooling	●		
Dual element dry-type air cleaner	●		
Muffler, underhood with curved-end exhaust stack	●		
Chrome exhaust extension	●		
Electric ether starting aid	●		
Engine coolant heater, 1,000 watts	●		
POWER TRAIN			
Powershift transmission			
Torque converter with electrically actuated twist grip			
F-N-R in 1st through 4th gears			
Transmission with powershift reverser and torque converter	●		
Fully synchronized four forward, four reverse speeds / Isolation mounted to mainframe			
Transmission oil cooler	●		
Vertical spin-on transmission filter	●		
Electric forward-neutral-reverse control lever with neutral safety switch interlock	●		
Electric clutch cutoff on gearshift and loader levers	●		
Differential lock, electric foot-actuated	●		
Planetary final drives	●		
Hydraulic service brakes			
Inboard, wet multi-disc, self adjusting and self equalizing / Conforms to SAE J1473	●		
Parking/emergency brake with electric switch control			
Spring applied, hydraulically released wet multi-disc / Independent of service brakes / Conforms to SAE J1473	●		
Hydrostatic power steering with emergency manual mode			
Non-powered front axle			
Mechanical-front-wheel-drive with limited slip differential			
Electric on/off control / Drive-shaft guard / Sealed axle			
Tires			
11L-16 F3 front tires	●		
14.5/75-16 F3 front tires	●		
12.5/80-18 traction front tires	●		
19.5L-24 R4 rear tires	●		
21L-24 R4 rear tires	●		
Rear wheel spacers for use with chains	●		
BACKHOE			
Backhoe with standard dipperstick, 15 ft. 10 in. digging depth	●		
Backhoe controls			
Two-lever (Deere) controls	●		
Three-lever (Case) controls	●		
Four-lever (Ford) controls	●		
SAE excavator two-lever controls	●		
Backhoe transport lock lever			
Swing lock pin stored in operator's station			
Stabilizer valve with two-direction anti-drift valves			
Pivoting stabilizers			
With dirt pads	●		
With reversible pads	●		
Stabilizer cylinder guards	●		
Backhoe buckets			
Less bucket, with bucket pins	●		
Standard duty with lift loops	●		
410E			
Heavy duty with lift loops	●		
Severe duty with lift loops	●		
Backhoe bucket coupler for "C" and "D" series John Deere buckets, Case buckets, and Cat buckets	●		
Extendible dipperstick, 4 ft. extension	●		
Auxiliary backhoe valve for swingers, thumbs, etc.	●		
Auxiliary backhoe valve for hammers, compactors	●		
Auxiliary backhoe plumbing for hammers, compactors	●		
SAE controlled load lowering device valves	●		
LOADER			
Hydraulic self leveling	●		
Return-to-dig feature	●		
Single-lever control with electric clutch cutoff switch	●		
Bucket-level indicator	●		
Loader boom service lock	●		
Auxiliary loader hydraulics with two-lever control	●		
Loader front coupler	●		
Loader buckets			
Less bucket, with bucket pins	●		
Heavy-duty buckets with bolt-on cutting edge, skid plates, and lift loops	●		
Multipurpose bucket with bolt-on cutting edge, skid plates, and lift loops	●		
HYDRAULIC SYSTEM			
42 gpm (159 L/min.) axial piston pump, PCLS system	●		
Independent hydraulic reservoir	●		
Hydraulic oil cooler	●		
"O"-ring face seal connectors	●		
10-micron vertical spin-on filter	●		
ELECTRICAL			
12-volt system	●		
65-amp alternator	●		
Single battery with 150-min. reserve capacity and 750 CCA	●		
Dual batteries with 300-min. reserve capacity and 1,500 CCA	●		
Positive terminal battery cover	●		
Blade-type multi-fused circuits	●		
By-pass start safety cover on starter	●		
LIGHTS			
Two front halogen driving/work lights, 32,500 candlepower each	●		
Two additional front halogen work lights, 32,500 candlepower each	●		
Two rear halogen work lights, 32,500 candlepower each	●		
Two front and two rear turn signal/flashing	●		
Two rear stop and tail	●		
Two rear reflectors	●		
Rotating beacon	●		
OPERATOR'S STATION			
Modular-design ROPS/FOPS canopy with molded roof	●		
Isolation mounted / Conforms to SAE J1040	●		
Left and right front access	●		
Slip-resistant steps and ergonomically located handholds	●		
Molded floor mat	●		
Headliner	●		
Coat hook	●		
Built-in beverage and Thermos® bottle holders	●		
Built-in Operator's Manual storage compartment with manual	●		
Interior rearview mirror	●		
Outside rearview mirrors	●		
Hand throttle with fuel economy setting at 2,100 rpm	●		
Suspended foot throttle	●		
Tilt steering	●		
Horn	●		
Key start switch with electric fuel shutoff	●		
Tachometer/hourmeter, illuminated electric	●		
410E			
Fuel gauge, illuminated electric	●		
Gauge package, illuminated electric	●		
Engine coolant temperature / Transmission oil temperature / Alternator volts / Fuel gauge	●		
Monitor system with audible and visual warning	●		
Engine air filter restriction indicator / Alternator indicator / Engine coolant temperature indicator with audible warning / Engine oil pressure indicator with audible warning / Hydraulic filter restriction indicator / Torque converter oil temperature indicator / Parking brake on/off indicator with audible warning / Seat belt indicator / Mechanical-front-wheel-drive on/off indicator / Beacon on/off indicator / Hydraulic oil temperature indicator	●		
Seats and seat belts			
Non-suspension vinyl swivel seat without armrests	●		
Suspension vinyl swivel seat with armrests and lumbar support	●		
Suspension fabric swivel seat with armrests and lumbar support	●		
Air suspension vinyl swivel seat with armrests and lumbar support	●		
Air suspension fabric swivel seat with armrests and lumbar support	●		
2-in. seat belt with retractors	●		
3-in. seat belt with retractors	●		
CAB			
Headliner	●		
Dome light	●		
Left cab door	●		
Right cab door	●		
Tinted safety glass	●		
Two front and one rear windshield wipers	●		
Front windshield washer	●		
Fresh air intake heater/defroster/pressurizer			
40,000 Btu/hr. (11.7 kW) heater	●		
Air conditioning			
26,000 Btu/hr. (7.6 kW) output / CFC-free R134a refrigerant	●		
65-amp alternator	●		
95-amp alternator	●		
AM/FM/weatherband radio	●		
Ride control	●		
OVERALL VEHICLE			
One-piece unitized construction mainframe	●		
Vehicle tie-downs, two front and one rear	●		
Remote grease bank for front axle	●		
Rigid mounted front bumper	●		
Front counterweights			
400 lb. (181 kg)	●		
650 lb. (295 kg)	●		
900 lb. (408 kg)	●		
1,150 lb. (522 kg)	●		
1,400 lb. (635 kg)	●		
Fuel tank, 36 gal. (136 L), ground level fueling	●		
Engine sideshields with sliding service access door	●		
Front grille screen	●		
Vandal protection for instrument panel, engine access doors, and fuel tank	●		
Reverse warning alarm			
Switchable to 97 dB(A) or 111 dB(A)	●		
Dent-resistant rear fenders	●		
Rear fender extensions	●		
Front fenders*	●		
SMV emblem	●		
Rental decal kit	●		
Special color paint*	●		
Quarter cab*	●		

KEY: ● Standard equipment ■ Optional or special equipment

*See your John Deere dealer for further information.



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel at 35 API gravity. No derating is required up to 10,000 feet (3050 m). Gross power is without cooling fan.

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a unit with 19.5L-24, 10 PR R4 rear tires, 11L-16, 12 PR F3 front tires, 1.30 cu. yd. (1.00 m³) loader bucket, and 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) backhoe bucket.

